

# CURRENT LITERATURE

## MINOR NOTICES

**Mechanics of cell division.**—In a study of the mechanics of cell division, GIESENHAGEN<sup>1</sup> presents the following conclusions. The nucleus, even in the resting condition, has a definite polarity, so that it can divide only in a predetermined direction. The median plane in which the cell plate will appear at mitosis is the equatorial plane, and the axis is perpendicular to its center. The axis of the nucleus is definitely determined by the preceding mitosis, its most common position being that of the axis of the mother cell, or a position at right angles to the axis of the mother cell. If the nuclei maintain their positions without any movement, there will be a succession of anticlines and periclinal divisions, but many causes may change the position of the nucleus and affect the direction of its axis and consequently the plane of the wall to be formed when the nucleus divides. The numerous variations from the periclinal and anticlinal divisions are discussed and suggestions are made as to their causes.—CHARLES J. CHAMBERLAIN.

**American Breeders' Association.**—The proceedings of the meeting held at Lincoln, Nebraska, January 17-19, 1906, have just been published as the second volume issued by the Association. Naturally the papers vary widely in subject and in value, and it is impossible to estimate them by reading. It is clear, however, that fundamental biological problems are being considered; and that views and data are being recorded that are extremely suggestive. Among the strictly botanical topics may be noted the following: Tobacco breeding, The corn plant as affected by date of planting, Some correlated characters in wheat and their transmission, Plant adaptation, A method of breeding a strain of alfalfa from a single individual, Correlation of characters in plant breeding, Variation in wheat hybrids, Breeding drought-resistant crops, Fundamental requirements for grain breeding, Value of corn pollen from suckers *vs.* main stalks, A theory of heredity, etc.—J. M. C.

**The Dillenian Herbaria.**—The herbarium of the University of Oxford contains some collections of great historical interest, among which those of DILLENIIUS (1684-1747), the first "Sherardian" professor of botany, are conspicuous. An account of the Dillenian herbaria has just been published, together with a biographical sketch, selections from correspondence, etc., by DRUCE,<sup>2</sup> edited and with an introduction by VINES, the present "Sherardian" professor. The collec-

<sup>1</sup> GIESENHAGEN, K., Studien über die Zellteilung im Pflanzenreiche, ein Beitrag zur Entwicklungsmechanik vegetabilischer Gewebe. 8vo. pp. 91. Stuttgart: Fr. Grub. 1905.

<sup>2</sup> DRUCE, G. CLARIDGE, and S. H. VINES, The Dillenian herbaria. pp. cxii + 258. Oxford: The Clarendon Press. 1907. 12 sh.